



Since January 2020 Elsevier has created a COVID-19 resource centre with free information in English and Mandarin on the novel coronavirus COVID-19. The COVID-19 resource centre is hosted on Elsevier Connect, the company's public news and information website.

Elsevier hereby grants permission to make all its COVID-19-related research that is available on the COVID-19 resource centre - including this research content - immediately available in PubMed Central and other publicly funded repositories, such as the WHO COVID database with rights for unrestricted research re-use and analyses in any form or by any means with acknowledgement of the original source. These permissions are granted for free by Elsevier for as long as the COVID-19 resource centre remains active.

This is the first study that investigated whether the treatment decision in rheumatoid arthritis can be guided by the results of the synovial biopsy. The authors hypothesised that the clinical response to anti-B-cell therapy (rituximab) should be poorer compared with the clinical response to tocilizumab in patients with low or an absence of B cells in the synovial tissue. Tocilizumab was better in patients classified as B-cell poor according to the RNA sequencing. The trial did not show that the B-cell depletion efficacy is higher in the B-cell rich population; however, the study was not statistically powered to show this.

The results of this study⁵ suggest that synovial biopsy with the subsequent analysis of the immunological signature could guide the treatment decision and further studies should follow. For clinical practice, the direct implication and effect of the study are less obvious. First, rituximab is approved in the EU and the USA as a second-line biological DMARD after unsuccessful treatment with at least one TNF inhibitor, and tocilizumab can be used as a first-line biological DMARD; thus, tocilizumab is normally preferred over rituximab for the first-line biological DMARD treatment anyway. Second, Humby and colleagues⁵ suggest superiority of IL-6 blockade over B-cell depletion in patients classified as B-cell poor; this means that we know who would be a poor candidate for rituximab therapy, but it is rather unclear who would be a good candidate for rituximab compared with candidates for tocilizumab and other biological and targeted

synthetic DMARDs. Third, synovial biopsy is an invasive procedure (even when done in a minimally invasive way) that would not justify the information gain for the reasons indicated above.

In summary, we are still far away from practising precision medicine in rheumatology. Strategy studies with molecular characterisation of the disease on both systemic and local levels with the use of advanced technologies might help to identify specific predictors of response and non-response and to develop individualised treatment approaches.

I have received reports grants and personal fees from AbbVie, MSD, Novartis, and Pfizer and personal fees from Bristol-Myers Squibb, Celgene, Lilly, Roche, UCB, Biocad, GlaxoSmithKline, and Gilead, all outside the area of work commented on here.

Denis Poddubnyy

denis.poddubnyy@charite.de

Division of Gastroenterology, Infectious Diseases and Rheumatology, Charité-Universitätsmedizin Berlin, 12203 Berlin, Germany

- 1 Kerschbaumer A, Sepriano A, Smolen JS, et al. Efficacy of pharmacological treatment in rheumatoid arthritis: a systematic literature research informing the 2019 update of the EULAR recommendations for management of rheumatoid arthritis. *Ann Rheum Dis* 2020; **79**: 744–59.
- 2 Gabay C, Emery P, van Vollenhoven R, et al. Tocilizumab monotherapy versus adalimumab monotherapy for treatment of rheumatoid arthritis (ADACTA): a randomised, double-blind, controlled phase 4 trial. *Lancet* 2013; **381**: 1541–50.
- 3 Fleischmann R, Weinblatt M, Ahmad H, et al. Efficacy of abatacept and adalimumab in patients with early rheumatoid arthritis with multiple poor prognostic factors: post hoc analysis of a randomized controlled clinical trial (AMPLE). *Rheumatol Ther* 2019; **6**: 559–71.
- 4 Courvoisier DS, Chatzidionysiou K, Mongin D, et al. The impact of seropositivity on the effectiveness of biologic anti-rheumatic agents: results from a collaboration of 16 registries. *Rheumatology* 2020; published online Aug 18. <https://doi.org/10.1093/rheumatology/keaa393>.
- 5 Humby F, Durez P, Buch MH, et al. Rituximab versus tocilizumab in anti-TNF inadequate responder patients with rheumatoid arthritis (R4RA): 16-week outcomes of a stratified, biopsy-driven, multicentre, open-label, phase 4 randomised controlled trial. *Lancet* 2021; **397**: 305–17.

COVID-19 and the Swedish enigma

In the second wave of the COVID-19 pandemic, the Swedish national response continues to be an outlier with cases and deaths increasing more rapidly than in its Nordic neighbours.^{1,2} On Dec 20, 2020, COVID-19 deaths in Sweden had reached more than 8000³ or 787 deaths per 1 million population, which is 4·5 to ten times higher than its neighbours.^{1–3} This difference between Nordic countries cannot be explained merely by variations in national cultures, histories, population sizes and densities, immigration patterns, the routes by which the virus was first introduced, or how cases and deaths are

reported. Instead, the answers to this enigma are to be found in the Swedish national COVID-19 strategy, the assumptions on which it is based, and in the governance of the health system that has enabled the strategy to continue without major course corrections.

From the onset of the COVID-19 pandemic, the Public Health Agency, Folkhälsomyndigheten (FHM), embarked on a de-facto herd immunity approach, allowing community transmission to occur relatively unchecked.⁴ No mandatory measures were taken to limit crowds on public transport, in shopping malls, or in other crowded



Published Online
December 22, 2020
[https://doi.org/10.1016/S0140-6736\(20\)32750-1](https://doi.org/10.1016/S0140-6736(20)32750-1)



Fredrik Sandberg/Tit News Agency/AFP/Getty Images

places, while recommending a limit of 50 people for gatherings⁵ as of March 29, 2020. Coronavirus testing, contact tracing, source identification, and reporting, as recommended by WHO,⁶ were limited and remain inadequate.⁷ In our view, there is still not sufficient recognition in the national strategy of the importance of presymptomatic and asymptomatic transmission, aerosol transmission,^{8,9} and use of face masks.^{9,10} Recently, face masks were introduced in care homes and health-care facilities (Nov 11, 2020, in Stockholm)¹¹ and will be recommended “on public transport at certain times” from Jan 7, 2021.¹² Other incremental interventions are being introduced, such as changing a ban on the sale of alcohol from 2200 h (introduced on Nov 11, 2020) to 2000 h from Dec 24, 2020,^{12,13} recommending further limit on the size of gathering, and urging people to take individual responsibility and stay at home when they have symptoms.¹²

With this gradual approach, the number of COVID-19 deaths in Sweden peaked during the first wave at 102 reported deaths (7-day rolling average) on April 21, 2020,³ at a higher level and with slower decline than in the neighbouring Nordic countries, reaching a low in early September, 2020.¹³ Rather than anticipating the second wave and change course, the Swedish Government loosened restrictions in early October, 2020, increasing the numbers that could attend public events from 50 to 300 and allowing people older than 70 years to meet with family and friends.¹⁴

Many critical voices have been raised about Sweden’s national response to COVID-19 and its failure to achieve its objectives to flatten and shorten the curves of cases, hospitalisations, and deaths.^{4,15} The Corona Commission (Coronakommissionen), appointed by the Swedish Government to review the national COVID-19 response, has focused initially on the situation among older people.¹⁶ On Dec 15, 2020, the Corona Commission concluded that “the single most important factor behind the major outbreaks and the high number of deaths in [elderly] residential care is the overall spread of the virus in the society”.¹⁶ In addition to the failure of the COVID-19 strategy, there are other unresolved structural factors related to the organisation of the care of older people in Sweden.

The Royal Swedish Academy of Sciences’ independent review of the available evidence¹⁷ validates WHO’s recommendations to keep a physical distance, wear a face mask, keep rooms ventilated, avoid crowds, and practise good hand and respiratory hygiene.¹⁸ However, not until Dec 18, 2020, did the government give directives to start to translate more of these recommendations into practice including the use of face masks,¹² as the trajectory of rapidly rising cases and deaths continues and intensive-care facilities and the health-care professionals are stretched to the limits in many regions in Sweden.^{1,19}

The ability to work effectively across sectors to minimise the spread of COVID-19 has been further hampered by a decentralised and fragmented system of health and social services, including the care of older people.²⁰ The COVID-19 pandemic has revealed failures in the governance and legal frameworks for health and social services in Sweden, including inadequate multisector coordination, accountability of multiple authorities at different levels (commune, region, and central levels) that share responsibilities, and transparency in policy-making and decision-making processes. Moreover, there has been insufficient participation and engagement of key stakeholders, including informed scientists, civil society, and behaviour change communications expertise.

COVID-19 vaccination is expected to start in January, 2021, or possibly sooner.²¹ Sweden is likely to be able to implement a strong COVID-19 vaccination programme if it strengthens interagency coordination

and decentralised collaboration, provides greater transparency and accountability, including announcing a public national vaccine strategy and monitoring system, and develops an effective communications strategy and plan. Meanwhile, COVID-19 cases continue to increase and too many people are dying unnecessarily in a country without timely concerted actions to interrupt the high transmission and reduce the burden of deaths and illness.

We declare no competing interests.

*Mariam Claeson, Stefan Hanson
mariamclaeson@gmail.com

Results for Development, Washington, DC 20036, USA (MC); Spånga Transkulturella Läkarmottagning, Spånga, Sweden (SH)

- 1 Our World in Data. Coronavirus pandemic: daily updated research and data. 2020. <https://ourworldindata.org/grapher/biweekly-covid-deaths?t=ab=chart&time=2020-02-15..latest&country=DNK-FIN-NOR-SWE> (accessed Dec 20, 2020).
- 2 Folkhälsomyndigheten. Public Health Agency of Sweden. Antal fall av covid-19 i Sverige—data till och med föregående dag publiceras varje tisdag-fredag kl. 2020. https://experience.arcgis.com/experience/09f821667ce64bf7be6f9f87457ed9aa/page/page_0/ (accessed Dec 20, 2020).
- 3 Platz.se. Coronavirus i Sverige. Dec 20, 2020. <https://platz.se/coronavirus/#jump-to-total-deaths> (accessed Dec 20, 2020).
- 4 Björklund K, Ewing A. The Swedish COVID-19 response is a disaster. It shouldn't be a model for the rest of the world. *Time*, Oct 14, 2020. <https://time.com/5899432/sweden-coronavirus-disaster/> (accessed Dec 17, 2020).
- 5 Regeringskansliet. Swedish Government. Förbud mot allmänna sammankomster eller offentliga tillställningar med fler än 50 deltagare. March 29, 2020. <https://www.regeringen.se/artiklar/2020/03/forbud-mot-allmanna-sammankomster-eller-offentliga-tillstallningar-med-fler-an-50-deltagare/> (accessed Dec 17, 2020).
- 6 WHO. Contact tracing in the context of COVID-19, May 10, 2020. <https://www.who.int/publications/i/item/contact-tracing-in-the-context-of-covid-19> (accessed Dec 20, 2020).
- 7 Svenska Dagbladet. Corona virus Sverige. Regioner hinner inte smittspåra i tid. Dec 3, 2020. <https://www.svd.se/regioner-hinner-inte-smittspara-i-tid> (accessed Dec 20, 2020).
- 8 Folkhälsomyndigheten Public Health Agency of Sweden. COVID-19. 2020. <https://www.folkhalsomyndigheten.se/the-public-health-agency-of-sweden/communicable-disease-control/covid-19> (accessed Dec 16, 2020).
- 9 Jayaweera M, Perera H, Gunawardana B, Manatunge J. Transmission of COVID-19 virus by droplets and aerosols: a critical review on the unresolved dichotomy. *BMJ* 2020; **370**: m3223.
- 10 Folkhälsomyndigheten. Public Health Agency of Sweden. General guidelines for the public—a summary. 2020. <https://www.folkhalsomyndigheten.se/publicerat-material/publikationsarkiv/g/general-guidelines-for-the-public-a-summary/> (accessed Dec 16, 2020).
- 11 Region Stockholm. Hälso-och sjukvårdsförvaltningen. Rekommendation för personlig skyddsutrustning och source control för att minska risken för smittspridning av covid-19 inom vård och omsorg. Nov 11, 2020. https://vardgivarguiden.se/globalassets/kunskapsstod/varhygien/smittamne-handlingsprogram-och-riktlinjer/skyddsutrustning---enkelsidor/anvandning-av-visir-och-munskydd-i-all-var-d-och-omsorg-20-12-11.pdf?fbclid=IwAR1G_J4oQwsmXzDz_-LzWIC_Tlxtc8iDxjW4cY8NWWAMUjVL2RrYX1WBu2E (accessed Dec 17, 2020).
- 12 Regeringskansliet. Swedish Government. Ytterligare nationella restriktioner för att hejda smittspridningen, Dec 18, 2020. <https://www.regeringen.se/artiklar/2020/12/ytterligare-nationella-restriktioner-for-att-hejda-smittspridning/> (accessed Dec 20, 2020).
- 13 Aftonbladet. Corona stoppar alkohol på krogen efter 22. Nov 11, 2020. <https://www.aftonbladet.se/nyheter/a/OKPX2/corona-stoppar-alkohol-pa-krogen-efter-22> (accessed Dec 15, 2020).
- 14 Folkhälsomyndigheten. Allmänna råd ändras för personer som är 70 år och äldre. Oct 22, 2020. <https://www.folkhalsomyndigheten.se/nyheter-och-press/nyhetsarkiv/2020/oktober/viktigt-att-alla-tar-ansvar-nar-allmanna-rad-andras-for-personer-som-ar-70-ar-och-aldre/> (accessed Dec 20, 2020).
- 15 Rocklöv J, Lundbäck B, Larsson E, Elgh F, Sjödin H, Olsen B. Sverige bör byta strategi för att bromsa spridningen av coronavirus. *Läkartidningen* 2020; **117**: FZ7R.
- 16 Melin M, Ahlback Öberg S, Enander A, et al. The Corona Commission. Elderly care during the pandemic. Ministry of Health and Social Affairs, summary of SOU 2020:80. Dec 15, 2020. https://www.government.se/4af26a/contentassets/2b394e1186714875bf29991b4552b374/summary-of-sou-2020_80-elderly-care-during-the-pandemic.pdf (accessed Dec 16, 2020).
- 17 Royal Swedish Academy of Sciences. Ny rapport om munskydd och ventilation från Vetenskapsakademiens expertgrupp om Covid-19. Nov 19, 2020. <https://www.kva.se/sv/pressrum/pressmeddelanden/ny-rapport-om-munskydd-och-ventilation-fran-vetenskapsakademiens-expertgrupp-om-covid-19> (accessed Dec 16, 2020).
- 18 WHO. Coronavirus (COVID-19) advice to the public. 2020. <https://www.who.int/emergencies/diseases/novel-coronavirus-2019/advice-for-public> (accessed Dec 16, 2020).
- 19 Ström M. Fullt på IVA i Stockholm—regionen väddar om hjälp. *Läkartidningen*, Dec 9, 2020. <https://lakartidningen.se/aktuell/nyheter/2020/12/nastan-alla-iva-platser-upptagna-i-stockholm/> (accessed Dec 16, 2020).
- 20 Hammarström A, Kwiatkowska M, Nyman L, Hammarström E. Felaktig organisation grund till tragedin inom äldreomsorgen. *Läkartidningen*, May 20, 2020. <https://lakartidningen.se/opinion/debatt/2020/05/felaktig-organisation-grund-till-tragedin-inom-aldremsorgen/> (accessed Dec 17, 2020).
- 21 Folkhälsomyndigheten. Start för vaccin mot COVID-19 tidigast januari 2021. Nov 26, 2020. <https://www.folkhalsomyndigheten.se/nyheter-och-press/nyhetsarkiv/2020/november/start-for-vaccinationer-mot-covid-19-tidigast-i-januari-2021/> (accessed Dec 17, 2020).

Wakley–Wu Lien Teh Prize Essay 2020: passing the baton to the next generation of health workers



In 2020, health workers have worked tirelessly in response to COVID-19. For this year's Wakley–Wu Lien Teh Prize,¹ we called for essays of the experiences of health professionals in China during the COVID-19 pandemic and were delighted to receive around 63 submissions. Two editors at the *Lancet* Group shortlisted the top essays, which

were sent anonymously to a voting panel at Peking University and Tsinghua University, Beijing, China. The submissions touched our hearts. Essays depicted the bravery of health workers who left their homes to volunteer on the front lines, the professionalism of doctors and nurses who triaged patients in clinics and cared for the sickest patients in intensive care units,

Published Online
January 7, 2021
[https://doi.org/10.1016/S0140-6736\(21\)00040-4](https://doi.org/10.1016/S0140-6736(21)00040-4)
See **Wakley–Wu Lien Teh Prize Essay** page e3